

Application/Control Number: 09/769,119
Art Unit: 2655

Docket No.: 2000-0031

REMARKS

Reconsideration and allowance in view of the foregoing proposed amendments and the following remarks are respectfully requested.

By this proposed amendment, claims 13, 14, 17-27, and 30-33 remain pending, claims 13, 17, 20, and 30 have been amended, and claims 15-16, 28-29, and 34-38 have been newly canceled without prejudice or disclaimer.

Applicants propose amending the specification only to correct typographical errors.

Claim Numbering

Applicants thank the Examiner for pointing out a claim numbering problem with respect to claims 36 and 37, which have been renumbered to claims 37 and 38, respectively, by the Examiner.

Rejection of Claims 13-38 Under Section 103

The Examiner rejected claims 13-38 under 35 U.S.C. 103 as allegedly being unpatentable over U.S. Patent No. 5,555,447 to Kotzin et al. ("Kotzin") in view of U.S. Patent No. 5,216,744 to Alleyne et al. ("Alleyne"). Claims 15-16, 28-29, and 34-38 have been cancelled without prejudice or disclaimer thereby making the rejection of these claims moot. Applicants traverse the rejection of claims 16 and 29, which Applicants propose canceling. The features of claims 16 and 29 have been incorporated into amended independent claims 13 and 20, respectively. Applicants propose amending claims 17 and 30 because they depended from proposed canceled claims.

Applicants' proposed amended independent claim 13 includes the features of claims 15 and 16. Claim 13 is directed to a communication device configured to operate in a discontinuous transmission packet telephony network having a channel access delay. The

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communication device includes, among other things, an access delay reducer configured to form an overlap-added segment at an end portion of a time-scaled frame. The overlap-added segment is formed from a first segment of the frame, where the first segment is located immediately before the first (removed) portion, and a second segment of the frame, where the second segment comprises an endmost portion of the terminal section of the frame.

On page 7 of the Office Action, the Examiner admitted that Kotzin fails to disclose the above-mentioned feature and relied on Alleyne, Figs. 6-A through 6-C, col. 7, lines 47-67, and col. 8, lines 1-39, to disclose this feature. Applicants respectfully disagree with the Examiner.

Alleyne, at col. 7, lines 47-67 and col. 8, lines 1-39, discloses:

FIG. 6 schematically shows group G consisting of P samples. Also shown is the next sequential group G+1 of P samples. A descending ramp function D is applied to the samples S of group G and an ascending ramp function A is applied to the samples S of group G+1. After application of the respective functions, the samples are combined to produce P combined samples S' which then make up combined group C.

For i greater than or equal to 1 and less than or equal to P, $S'_i = S^{KG}_i \times D(i) + S_{iG} + 1 \times A(i)$, where S'_i is the ith sample in group C, S_{iG} is the ith sample of group G, $S_{iG} + 1$ is the ith sample of G+1, and $D(i) = 1 - \frac{i}{P}$ and $A(i) = \frac{i}{P}$. It will be observed that function D is a descending ramp function and function A is an ascending ramp function.

It will be further noted that for values of i close to zero, S'_i is close to S_{iG} and that for values of i close to P, S'_i is close to $S_{iG} + 1$. Thus descending ramp function D weights group C so that the first part of group C resembles the first part of group G, while ascending ramp function A weights group C so that the latter part of group C resembles the latter part of group G+1.

FIG. 6-B schematically illustrates formation of a combined group C as performed in connection with the time scale compression routine of FIG. 4. As indicated by FIG. 6-B, group N is reproduced, combined group C is formed by applying descending ramp function D to group N+1 and ascending ramp function A to group N+2. Group C is reproduced and then group N+3 is reproduced. Groups N+1 and N+2 of FIG. 6-B respectively correspond to groups G and [sic] G+1 of FIG. 6-A. Groups N, N+1 and N+2 of FIG. 6-B also correspond to the groups of the same names of steps 160 and 162 of FIG. 4; group C of FIG. 6-B corresponds to the combined group output at step 164 of FIG. 4; Group N+3 of FIG. 6-B corresponds either to group N of the next branch through step 160 or to the group reproduced at the next branch

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through step 152, as the case may be.

FIG. 6-C schematically illustrates formation of a combined group C as performed in connection with the time scale expansion routine of FIG. 5. As indicated by FIG. 6-C, group N is reproduced, combined group C is formed by applying descending ramp function D to group [sic] N+1 and ascending ramp function A to group N. Group C is reproduced and then group N+1 is reproduced. Groups N and N+1 of FIG. 6-C respectively correspond to groups G+1 and G of FIG. 6-A. Groups N and N+1 of FIG. 6-C also correspond to the groups of the same name of steps 188, 190 of FIG. 5.

It will be noted that group C of Fig. 6-B is formed so that its beginning smoothly blends with the end of group N and its end smoothly blends with the beginning of group N+3. Similarly, group C of FIG. 6-C is formed so that its beginning smoothly blends with the end of group N and its end smoothly blends with the beginning of group N+1.

Although linear ramp functions D and A are preferred, it will be recognized that other functions, such as nonlinear ramps, could be instead used to form combined group C.

According to the cited portion of Alleyne, Fig. 6-B corresponds to formation of a combined group C as performed with respect to time compression, as shown in Fig. 4. As shown in Fig. 6-B, group N is reproduced, combined group C is formed from groups N+1 and N+2 and reproduced, and then group N+3 is reproduced. In other words, the combined group, which the Examiner equates with an overlap-add segment, is formed from a first segment of a frame, located in a first portion to be removed, and a second segment, located within a second segment to be removed. The second segment does not appear to comprise an endmost portion of a terminal section of a frame because Fig. 6-B shows group N+3 following the combined group C. Fig. 6-C illustrates formation of a combined group C as performed in connection with inserting a combined frame to form a time-scaled frame (i.e., no portion of the frame is removed). Therefore, Alleyne, fails to satisfy the deficiencies of Kotzin by disclosing or suggesting an overlap-added segment being formed from a first segment of a frame, where the first segment is located immediately before the first portion, and a second segment of the frame, where the second segment comprises an endmost portion of a terminal section of the frame, as required by amended claim 13.

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For at least the above reasons, Applicants submit that claim 13 is patentable over Kotzin in view of Alleyne and respectfully request that the rejection of claim 13 be withdrawn.

Claims 14 and 17-19 depend from claim 13 and are patentable for at least the reasons discussed with respect to claim 13. Therefore, Applicants respectfully request that the rejection of claims 14 and 17-19 be withdrawn.

Applicants propose amending claim 20 to include features of claims 28 and 29. Amended claim 20 is directed to a method for processing a speech signal for transmission over a network. The method includes, among other things, removing an integer number of a pitch period's worth of the speech signal from an input frame to form a time-scaled frame, wherein an end portion of the time-scaled frame comprises an overlap-added segment, and the overlap-added segment is formed from a first segment of the input frame, the first segment located immediately before the removed portion and a second segment of the input frame, the second segment comprising an endmost portion of a terminal section of the input frame.

Applicants submit that claim 20 is similar to claim 13 and is patentable over Kotzin in view of Alleyne for at least reasons similar to those provided with respect to claim 13. Therefore, Applicants respectfully request that the rejection of claim 20 be withdrawn.

Claims 21-27 depend from claim 20 and are patentable for at least the reasons provided with respect to claim 20. Therefore, Applicants respectfully request that the rejection of claims 21-27 be withdrawn.

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CONCLUSION

Applicants submit that because features present in dependent claims have been moved to independent claims, no new issues have been presented. Having addressed all rejections of claims 13-38, Applicants respectfully submit that the subject application is in condition for allowance and a Notice to that effect is earnestly solicited:

Respectfully submitted,

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